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**REMARKS**

Claims 1, 4-10, 15-20, 30-40, 43-47, 52, and 53 are currently pending in the subject application and are presently under consideration. Independent claims 1, 15, 30 have been amended to incorporate limitation(s) recited in claim 6 as originally filed. Claims 52 and 53 have been amended herein to correct minor informalities. Applicants' representative notes that the amendments do not necessitate a new search or any undue effort by the Examiner because they do not present new claimed subject matter. Accordingly, entry and consideration of these amendments is respectfully requested. A version of all pending claims is shown at pages 2-13 of the Reply.

In addition, it appears the rejection of independent claims 43 and 44 relies upon an analysis that fails to consider previous amendments submitted in the Reply to Office Action (dated January 4, 2005). Applicants' representative respectfully submits that, in view of the previous amendments, these claims expressly recite limitations that the Examiner contends are necessary for the claims to be allowable over the cited art. Accordingly, applicants' representative believes claims 43 and 44 should be deemed allowable, or in the alternative, applicants' representative requests that the Examiner provide a specific reference addressing the previous amendments.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

**I. Rejection of Claims 45-47 Under 35 U.S.C. §101**

Claims 45-47 stand rejected under 35 U.S.C. §101. It is respectfully submitted that this rejection is improper and should be withdrawn for at least the following reasons. The subject claims fall within the statutory classes for inventions.

At page 2 of the Final Office Action (dated June 1, 2005) the Examiner contends that a computer-readable medium having computer executable instructions, when read in light of the applicants' disclosure, is nonstatutory. In particular, because applicants' disclosure recites that "computer readable media" can include "carrier waves", the Examiner contends that claims 45-47 are directed toward information *per se*. However, the Examiner tacitly ignores that the specification portion of the applicants' disclosure also recites at the same line (page 6, line 24) that computer readable media can include "disks" and "memories", which does not sustain, and,

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indeed, directly contradicts the Examiner's contention that in light of the applicants' disclosure, the claims are directed toward information *per se*. Furthermore, none of the aforementioned claims recite "carrier waves" and therefore the rejection is improper - although it is submitted that signal claims fall within the provinces of statutory subject matter.

"[A] claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." See MPEP § 2106(IV)(B)(1)(a) (emphasis added). Claims 45-47 of the subject invention expressly recite "a computer-readable medium" encoded with "a data structure" (or, in the case of claims 45 and 47, what is well-known to those skilled in the art to be a data structure). Such a combination defines structural and functional interrelationships, and is statutory. Accordingly, this rejection of claims 45-47 should be withdrawn.

## II. Rejection of Claims 1-6, 8-10, 43, 44, 52 and 53 Under 35 U.S.C. §102(e)

Claims 1-6, 8-10, 43, 44, 52 and 53 stand rejected under 35 U.S.C. §102(e) as being anticipated by Jain, *et al.* (U.S. 6,567,980). Withdrawal of this rejection is respectfully requested for at least the following reasons. Jain, *et al.* fails to teach or suggest each and every limitation as recited in the subject claims.

A single prior art reference anticipates a patent claim only if it expressly or inherently describes *each and every limitation set forth in the patent claim*. *Trintec Industries, Inc., v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 U.S.P.Q.2d 1597 (Fed. Cir. 2002); See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). *The identical invention must be shown in as complete detail as is contained in the ... claim*. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

### *Independent Claims 1 and 6*

The claimed invention relates to viewing *annotated digital media* and non-linear viewing of related *annotated media*. In particular, independent claim 1 (and similarly independent claim 6) recites, "a metadata generator that produces metadata associated with the selected scene and

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*annotates the selected scene with the metadata*" and "an organizer that places the selected *annotated scene* in a media store to facilitate non-linear viewing of one or more scenes". Jain, *et al.* does not disclose or suggest these novel aspects of applicants' claimed invention.

Rather, Jain, *et al.* discloses a multimedia cataloger that extracts metadata from video (col. 2, lines 18-20), and commits the metadata to the Metadata Track Index Manager and/or a track index (col. 8, lines 54-59; col. 9, lines 11-12). Jain, *et al.* neither annotates digital media with metadata, nor stores annotated media as in applicants' invention as recited in the subject claims. Instead, the reference extracts metadata from the media, and stores that metadata separately from the media. (See *e.g.*, Fig. 1, items 130, 140).

At page 3 of the Final Office Action (dated June 1, 2005), the Examiner improperly contends that Jain, *et al.* discloses "a metadata generator that produces metadata associated with the selected scene and *annotates the selected scene with the metadata*", as recited by independent claim 1 (and similarly independent claim 6), citing column 2, lines 6-9 of the reference. However, the indicated portion of Jain, *et al.* discloses that media can be indexed and distributed across an enterprise - indexing media and/or metadata does not anticipate or suggest the claimed invention. The reference fails to teach or suggest a metadata generator that produces metadata associated with the selected scene and *annotates the selected scene with the metadata*.

Additionally, independent claim 1 (and similarly independent claim 6) recites, "an organizer that places the selected *annotated scene* in a media store to facilitate non-linear viewing of one or more scenes". The Examiner argues that these limitations are disclosed because Jain, *et al.* recites that metadata "becomes the foundation for a rich, frame-accurate index that provides immediate, non-linear access to any segment of the video". (See Final Office Action, pages 3-4). However, as noted *supra*, Jain, *et al.* does not annotate the media with metadata, and further, the reference stores metadata and media at independent locations, thereby requiring an intermediate index (*i.e.*, the Metadata Track Index) in order to provide non-linear access to the media segments, whereas the claimed invention directly annotates the selected scene for rapid non-linear access. Accordingly, Jain *et al.* neither expressly nor inherently describes each and every limitation set forth in the subject claims. This rejection of independent claims 1 and 6, as well as all claims that depend there from, should be withdrawn.

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***Independent Claims 43 and 44***

Independent claim 43 recites, “a second field that holds a metadata item related to the media item, where *the metadata facilitates locating a related media item by annotating the related media with metadata*”. Independent claim 44 recites, “in response to the interface element selection signal, *initiating processing of related media by the metadata generator* to facilitate non-linear viewing of media based, at least in part, upon stored metadata.” Jain, *et al.* does not teach or suggest these limitations.

Page 5 of the Final Office Action incorrectly states that Fig. 2, item 178 of Jain, *et al.* discloses “a second field that holds a metadata item related to the media item, where *the metadata facilitates locating a related media item by annotating the related media with metadata*”. To the contrary, as detailed, *supra*, Jain, *et al.* does not provide for “annotating the related media with metadata”.

Moreover, item 178 of Fig. 2 illustrates “closed-caption text and timecodes” (col. 4, lines 30-31) that correspond to the Keyframes extracted during the capture process. (col. 4, lines 29-31). In particular the closed-caption text and timecodes are metadata that correspond to the media frame of item 176. Therefore, Jain, *et al.* discloses a metadata item related to the media item, however, the reference does not teach or suggest “the metadata facilitates locating a related media item ...” as recited in independent claim 43.

Furthermore, the Examiner does not address the claim amendments included in the Reply to Office Action (dated January 4, 2005). *See* Final Office Action, pages 5, 6, and 13. Specifically, the Examiner contends at page 13, “All that actually appears is that ‘the metadata facilitates locating a related media item’”, yet the claim also recites, “*annotating the related media with metadata*”. It is clear that Jain, *et al.* does not teach or suggest each and every limitation recited, and the Examiner has not provided an adequate basis of rejection for claims 43 and 44 but instead merely recites the language of those claims prior to the previous amendments. *See* Final Office Action, page 6. Accordingly, for at least the foregoing reasons, this rejection of independent claims, 1, 6, 43, and 44, as well as all associated dependent claims, should be withdrawn.

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**III. Rejection of Claims 45-47 Under 35 U.S.C. §102(e)**

Claims 45-47 stand rejected under 35 U.S.C. §102(e) as being anticipated by Morris (U.S. Patent Application: 2002/0088000). Withdrawal of this rejection is respectfully requested for at least the following reasons. Morris fails to teach or suggest each and every limitation set forth in the subject claims.

Independent claims 45 and 46 recite, “a second field that stores *a metadata key that identifies an annotating metadata associated with the clip* identified by the clip identifier.” Independent claim 47 recites, “a second field that stores *a requested user action* ... and a third field that stores metadata...where *the metadata is employed to adapt* one or more clips *according to the requested user action.*” Morris does not disclose or suggest these limitations.

Morris relates to a method and system for controlling access to image metadata. Digital images captured and stored on an internal memory of a digital camera can be uploaded to a database for storing the images [and related metadata]. (Paragraphs 0017-0018). This related metadata is stored within the image file in individual image tags. (Fig. 2, item 60; paragraph 0020).

The Examiner argues at page 7 of the Final Office Action that a requested user action is stored in an image file, which implies the image file would have to be first retrieved and opened before the “user action” that is “stored” therein (e.g., a request to transmit an item) can be read and responded to. Furthermore, Morris is directed toward providing access to metadata (see e.g., paragraph 0005, “*Friends and family may then access the photo website and not only see the pictures, but read and/or hear the story and history behind each image by accessing the metadata.*”), but does not contemplate “*the metadata is employed to adapt* one or more clips *according to the requested user action*” as independent claim 47 recites. Transmitting a request for an image file in Morris may be read as a requested user action, as the Examiner urges, however, storing the requested user action in the image file or elsewhere is not disclosed. Similarly, employing the metadata to adapt the clips according to the requested user action (e.g., a request from the user to jump to the next clip), is not disclosed or suggested by the reference.

Finally, the data structure of Morris stores actual metadata, not a metadata key, and this stored metadata does not “*identif[y] an annotating metadata associated with the clip*”, as recited in independent claims 45 and 46. The Examiner concedes this fact, but attempts to deprecate the differences at page 13 of the Final Office Action, stating, “the metadata storage in Morris is

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sufficient to read upon the 'metadata key' because it is simply an identification of metadata". Applicants' representative disagrees. In particular, there is a very significant distinction between media metadata and a primary (or secondary) key that identifies that metadata. In essence, the Examiner suggests that the database of Morris uses keys, which is not disclosed or suggested, and that each individual image tag, containing only one piece of metadata that corresponds to a single image file (in which the image tag itself is embedded), is a key. This suggestion is implausible when "an identification of metadata" in Morris would merely require identifying the image file containing the metadata data structure. Furthermore, the metadata of Morris (even if it is read to be a key) does not identify an annotating metadata, but instead relates to the underlying media. Ultimately, Morris simply does not disclose "*a metadata key that identifies an annotating metadata associated with the clip*", and this rejection should be withdrawn.

#### IV. Rejection of Claim 7 Under 35 U.S.C. §103(a)

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Jain, *et al.* (U.S. 6,567,980) in view of Duncombe (U.S. 6,813,745). Withdrawal of this rejection is respectfully requested for at least the following reasons. Claim 7 depends directly from independent claim 6, and Duncombe, which relates to a media system for storing media files and a media organization file, does not make up for the aforementioned deficiencies of Jain, *et al.* with respect to claim 6. Accordingly, this rejection should be withdrawn.

#### V. Rejection of Claims 15-20 and 30-40 Under 35 U.S.C. §103(a)

Claims 15-20 and 30-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jain, *et al.* in view of Duncombe (U.S. 6,792,573). Withdrawal of this rejection is respectfully requested for at least the following reasons. Jain, *et al.*, alone and/or in combination with Duncombe, does not teach or suggest all limitations set forth in the subject claims. Additionally, there is no motivation to combine the teachings of Jain, *et al.* with those set forth in Duncombe without impermissibly employing 20/20 hindsight-based reasoning using applicants' claims as a roadmap to achieve the purported combination. Moreover, to make such combination would not yield a reasonable expectation of success without modifications that render the references inoperable for the intended purposes.

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To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) ***must teach or suggest all the claim limitations***. The teaching or suggestion to make the claimed combination ***and the reasonable expectation of success*** must be found in the prior art and not based on the Applicants' disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants' claimed invention relates to annotating digital media with metadata to facilitate non-linear viewing of related scenes that are annotated with metadata. In particular, independent claim 15 recites, "a scene retriever that retrieves one or more ***annotated scenes***" and "a playlist generator that evaluates the one or more ***relationships*** and produces a playlist of related scenes". Similarly, independent claim 30 recites, "an annotating tool that facilitates creating ... ***annotated video segments***" and "a media database comprising ***a playlist and one or more video segments, where the video segments are associated with an annotating metadata...***" Finally, independent claim 35 recites, "a media data store comprising one or more ***metadata-annotated displayable items***" and "a selector that selects a second displayable item from the media data store ***based, at least in part, on a relationship between a first metadata associated with the first displayed item and a second metadata associated with the second displayable item***". The Examiner concedes that Jain, *et al.* does not teach or suggest every limitation, but contends that Duncombe will cure the deficiencies.

However, as detailed above, independent claims 15, 30 and 35 recite limitations similar to independent claim 6 as originally filed, and which is not disclosed or suggested by Jain, *et al.* In particular, the instant claims recite annotated media (e.g., scenes, video segments, and displayable items). Duncombe does not make up for this deficiency of Jain, *et al.*, and these claims are, therefore, believed to be allowable over the cited references.

Furthermore, regarding the improper basis for combining the references, Duncombe relates to a method for playing media based upon feedback from a user, and discloses the goal seeking engine selects, from the media clips, only those that are associated with the topic that

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matches the desired topic; and, further, selects only those media clips with matching complexity ratings, order ratings, and/or time length. (col. 8, lines 22-60). Hence, the goal seeking engine requires at least two user inputs in order to locate relevant data (col. 4, lines 53-54). Duncombe "organizes data by treating it like a four-dimensional object" (col. 4, lines 19-20), and metadata is not contemplated by the reference. Therefore, metadata is not utilized to index the clips automatically, but instead, it is organized by a "professional" (col. 2, lines 60-64), and can be later reorganized based upon user ratings (col. 2, lines 54-56) of predetermined categories. In essence, Duncombe selects media clips based upon relationships between the media as defined by a professional and/or users who have previously viewed the clip. Duncombe does not choose clips based upon relationships between one or more pieces of annotating metadata.

The Examiner concedes that Jain, *et al.* does not teach or suggest "a playlist generator that evaluates the one or more *relationships* and produces a playlist of related scenes" (wherein the relationships are between the one or more pieces of annotating metadata) as recited in independent claim 15, but contends that Duncombe will alleviate this insufficiency when combined with Jain, *et al.* However, "a playlist generator" from Duncombe the Examiner seeks to incorporate into Jain, *et al.* does not evaluate relationships between metadata, but instead evaluates based upon categorical ratings. Therefore, the proposed combination does not teach or suggest all the claim limitations.

The Examiner further argues at page 14 of the Final Office Action that "a playlist generator" from Duncombe would then use metadata provided by Jain, *et al.* instead of using a professionally-organized and user-updated method to function as the disclosure teaches. However, Duncombe organizes data as a four-dimensional object, which is incompatible with the metadata track index of Jain, *et al.*, and Duncombe requires two search criteria in order to locate media clips, whereas Jain, *et al.* requires only one. The four-dimensional organizational method and multiple criteria search are not merely happenstance relating only to how data is stored, but are crucial to the manner in which Duncombe organizes and searches for clips, and, therefore, crucial to the method employed to create lists of clips. Therefore, a combination of the cited documents in the manner the Examiner suggests would render the references inoperable for the intended purposes. A proposed modification is inappropriate for an obviousness inquiry *when the modification rendered the reference inoperable for its intended purpose. In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992) (emphasis added). Similarly, the same flawed analysis has been



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applied by the Examiner to reject independent claims 30 and 35. Accordingly, this rejection of independent claims 15, 30, and 35, as well as all claims that depend there from, should be withdrawn.

#### CONCLUSION


The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP304US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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